

is providing interconnection in compliance with the checklist, it has provided no evidence that such interconnection is equal in quality to that which it provides itself.

2. Collocation

With regard to collocation, AT&T witness Hamman states that although AT&T's Agreement with BellSouth contains provisions for collocation, they are not yet implemented. Witness Hamman asserts that until the procedures set forth in the document are finalized and requests for collocation are processed, it is too soon to know whether BellSouth can meet the Act's requirements. Witness Hamman argues that until all procedures are developed, and in place, and tested, so that BellSouth can promptly provide interconnection to any requesting ALEC, BellSouth is not providing interconnection at the same level of quality that it provides to itself.

MCI witness Gulino states that MCI has four orders pending for physical collocation in Florida that were placed in April 1997. Witness Gulino further noted that BellSouth has missed the provisioning deadline on all four requests. In addition, witness Gulino states that collocation is a primary method of interconnection and a major way that carriers can compete with BellSouth. He contends that competitor's need reliable and fixed time intervals for provisioning collocation in order to plan and market, but that BellSouth's proposed SGAT has no fixed intervals for provisioning collocation. In its brief, MCI argues that it is not clear that BellSouth could meet the time intervals even if the SGAT contained them since BellSouth has not met the collocation terms of its agreement with MCI.

Witness Gulino also states that there are other implementation issues relating to collocation, some of which will not arise until after collocation is actually implemented. One example is the placing of unbundled loops and ports at collocations. BellSouth witness Scheye was unable to respond to a question with respect to BellSouth's ability to place a port at a collocation, saying no witness could answer to that level of specificity. He also stated that no such requests had been made. However, in its brief, MCI notes that until physical collocations are in place, no order will be placed for loops and ports.

Witness Gulino states that another problem is that BellSouth makes the determination whether a would-be competitor will be allowed to have physical or virtual collocation. Witness Gulino argued that since the process will be controlled by BellSouth at every point, the opportunity exists for BellSouth to use it to its advantage. For example, witness Gulino states that BellSouth has proposed that ordering intervals and other important items be determined pursuant to BellSouth's Collocation Handbook, which BellSouth reserves the right to change at any time, since it is not part of an interconnection agreement or the proposed SGAT. Witness Gulino asserts that, absent any controls, BellSouth would be able to delay the deployment of MCI facilities.

Witness Gulino also argues that BellSouth's policy of requiring ALEC technicians to be escorted by BellSouth personnel at physical collocation sites adds unnecessary time and expenses to routine maintenance and repairs on collocated equipment. The witness also states that MCI should not be at the mercy of BellSouth's escort schedule. Witness Gulino also disagrees with BellSouth's position, as stated by witness Scheye, that BellSouth is under no obligation to combine UNEs at an ALEC's virtual collocation facilities to which only BellSouth employees have access.

WorldCom presented evidence that it has attempted to implement collocation according to its agreement in Miami. WorldCom indicated that it has experienced "delays, missed date's, surprise changes, and more delays."

3. Network Blockage and End Office Trunking

With respect to end office trunking, FCTA presented that BellSouth will not provide MediaOne with end office trunking. End office trunking provides Media One with a single point of failure, the access tandem, in the network. In addition, FCTA noted that MediaOne has filed a complaint against BellSouth regarding excessive outages.

TCG witness Hoffman states that BellSouth fails to provide equal quality interconnection to TCG by improperly undersizing interconnection trunks to TCG, which causes network congestion and call blocking problems. Witness Hoffman asserts that BellSouth is

too slow in augmenting the number of trunks required to handle increases in traffic flowing from BellSouth to the TCG switch. Thus, traffic destined for TCG is blocked at BellSouth's switch. Witness Hoffman asserts that TCG receives complaints from its business customers that calls from their customers are not getting through. Witness Hoffman also testified that in some instances, TCG customers have threatened to discontinue service as a result of the blocking. The witness states that TCG has met with BellSouth to address this issue, but that BellSouth has been largely unresponsive.

TCG's witness also states that, despite requests at a meeting held on May 6, 1997, BellSouth has not provided data regarding the percentage of call blockage it experiences for its internal traffic so that TCG can compare it with the amount of TCG traffic being blocked. Witness Hoffman asserts that unless BellSouth establishes that call blocking rates are the same for itself as for TCG, BellSouth cannot meet the criteria for the first checklist item.

In addition, witness Hoffman states that BellSouth's network provides for alternate routing, but that TCG traffic is restricted to a single route through BellSouth's access tandem with no overflow protections. Although in some cases, the blocking is due to incorrect translations performed in BellSouth's end office switches, the witness asserts that the lack of alternate routing exposes TCG to the risk of network failure due to a single point of blockage on BellSouth's tandem trunk. In its brief, TCG argues that such significant differences between the two network designs violates the requirements of the Act and the FCC's rules. Witness Hoffman further notes that BellSouth's call blocking level approaches zero while TCG is receiving complaints from its customers that their calls are blocked.

Witness Hoffman asserts that TCG has requested that BellSouth install end office connections for its traffic going to TCG, because this would alleviate the congestion at BellSouth's tandems to a large degree. The witness states, however, that BellSouth has refused to install them. Witness Hoffmann also states that he asked that BellSouth install end office trunking where TCG has installed it, but that BellSouth simply said it would continue to install its trunking at the tandems. The witness indicates that BellSouth would not explain why it would install end office

trunking only at the tandems. In its brief, TCG argues that this makes TCG's network design inferior to BellSouth's.

BellSouth witness Stacy states that trunking arrangements are designed to meet particular blocking criteria, and final trunk groups are designed to meet a P.01 grade of service. A P.01 grade of service means that 1%, or one out of every one hundred calls would be blocked during the average busy hour. The witness asserts that BellSouth provides that grade of service except in instances of unanticipated traffic changes. He states that BellSouth reviews internal blocking reports weekly.

BellSouth provided traffic studies for trunks carrying ALEC traffic in the Southeast LATA, which is where TCG operates. The traffic study results demonstrated that TCG has experienced some significant blockage problems. The results also show that BellSouth has added a substantial number of trunks between its tandem and TCG's switches during the study period provided. In reference to the traffic studies, BellSouth suggested that TCG has not provided it with sufficient "advance knowledge" of increases in its traffic, and that this could be attributed to be a cause of the blocking that has occurred between BellSouth and TCG's network.

Witness Stacy states that it takes between thirty days and four months to add additional trunks once the need is recognized, depending on whether spare capacity is available or if additional equipment has to be purchased. In response to a specific example of two trunk augmentations at one week intervals, the witness acknowledged that trunks could be added in five days if capacity is available. TCG witness Hoffmann asserts, however, that the BellSouth account team with which he worked had quoted provisioning intervals of 45 business days for initial turn up of new trunks, and five to ten days to augment existing ones.

In response to TCG's position that blockage occurs not only in the trunks between BellSouth's tandem and TCG's switch, but also between BellSouth's own end office and its tandem, witness Stacy asserted that the trunk groups from its end offices to the tandem carry IXC and independent LEC traffic as well. Therefore, if TCG were experiencing blocking at that point in the network, witness Stacy argued that all the other carriers would also experience blocking.

Witness Stacy acknowledges that the data provided did not prove or disprove TCG's contentions with respect to blockage of TCG calls in BellSouth's own network, but states that the data was responsive to the questions asked. He stated that the ARMIS report that is provided by BellSouth to the FCC would demonstrate the blockage on the trunk groups that go to the access tandem. He also stated that BellSouth has not furnished any specific data to TCG about blockages on BellSouth's side of the network, but neither TCG nor any other ALEC had asked for that data. Witness Hoffmann asserts that TCG has requested that information on several occasions, but that BellSouth has not provided it.

The particular ARMIS data provided at hearing shows that, for the period of time studied, blocking on BellSouth's side of the access tandem was not a widespread problem. The ARMIS data provided does show, however, that, as recently as August there was substantial blocking of traffic carried to five ALECs, of which TCG was one. The ARMIS data requires that BellSouth report on blockage rates in excess of a certain percent over a given period of time. The blocking rates which were reported ranged from .0345% to .2424%. This is well in excess of the design standard of .005% for trunks going to an access tandem. This data does not identify whether or not ALEC traffic is overflowed to alternate or final trunks at peak periods. BellSouth did not initially produce the ARMIS data or any other data with its filing in this case to show that it is providing comparable trunking capacity and routing for ALEC traffic relative to that which it provides itself.

TCG's interconnection agreement does not contain specific provisions for diversity or alternate routing, as do some other agreements. BellSouth did not provide information to refute TCG's claim that BellSouth does not reroute its traffic if blocking occurs in the BellSouth network. BellSouth does reroute its own traffic to the local tandem. We also note that although other intervenor witnesses, such as MCI witness Gulino, indicates that they do not have any current problems with blockage, based on the data in the traffic studies, TCG carries a larger amount of traffic in the Southeast LATA than the other carriers for which data was reported.

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TCG witness Hoffman also notes that BellSouth is required by its agreement to establish matching interconnection trunking facilities. Section IV.H. of TCG's agreement states:

The parties agree to establish trunk groups from the interconnecting facilities ... such that each party provides a reciprocal of each trunk group established by the other party. Notwithstanding the foregoing, each party may construct its network, including the interconnecting facilities, to achieve optimum cost effectiveness and network efficiency.

Witness Hoffman states that BellSouth has repeatedly refused to provide end office connections, an architecture that the witness asserts is an industry standard for both local and toll traffic routing. According to witness Hoffmann, implementation of end office connections would alleviate congestion at the BellSouth tandems. Section IV.G of the TCG Interconnection agreement states in part:

... TCG shall establish a point of interconnection at each and every BellSouth access tandem within the local calling area TCG desires to serve for interconnection to those end offices that subtend the access tandem. Alternatively, TCG may elect to interconnect directly at the end offices for interconnection to end users served by that TCG end office. BellSouth will connect at each TCG end office or tandem inside that local calling area.

The witness states that it took BellSouth three months to provide blocking data to TCG once the blocking problem was discovered. Witness Hoffman asserts that TCG has raised the issue at its meetings with BellSouth. BellSouth witness Stacy responds that TCG has the responsibility to ensure that BellSouth has adequate trunk capacity for traffic going from its network to TCG.

4. Local Tandem Interconnection

MCI witnesses Gulino and Martinez asserts that although the point of interface for the exchange of local and EAS traffic between independent telephone companies and BellSouth is the local tandem, BellSouth has refused to allow interconnection at local tandems. While Witness Martinez indicates that MCI had received a memo from BellSouth to MCI stating that BellSouth would allow local tandem interconnection, MCI argues in its brief that, at hearing, BellSouth reversed itself when BellSouth witness Scheye stated that local tandem interconnection was not currently allowed and that if ALECs wanted it they would have to go through the BFR process.

MCI witness Martinez testifies that BellSouth's local traffic remains on the local network and does not utilize the access tandem. Hence, local traffic won by an ALEC is removed from the local network and local tandem, and placed on the IXC toll network via the access tandem. Witness Martinez argues that this has the overall effect of enhancing the BellSouth local service while degrading the IXC toll network.

BellSouth witness Scheye disagrees with MCI's assertions regarding the access tandem, saying that separate trunks are used for access and local traffic. Witness Stacy did, however, testify that the same trunk group "carries all of the traffic destined for every IXC in that LATA, all of the independent companies that are served by interLATA, intraLATA services all together with the ALEC's traffic."

BellSouth asserts that while it reroutes its traffic to local tandems, this arrangement "is not much of an advantage" to ALECs. While local tandem interconnection has traditionally been used by BellSouth and independent LECs for exchange of local traffic, witness Scheye states that local tandem interconnection is not provided for in its agreement with MCI. Witness Scheye asserts that if MCI wants local tandem interconnection, it may request it via the BFR process.

We note that Witness Scheye also states that local tandem interconnection was not offered in the SGAT. BellSouth witness Milner states, however, that the SGAT does include local tandem interconnection.

BellSouth witness Milner asserts that local tandem interconnection is technically feasible. He adds, however, that it might not be possible "technically to measure that traffic sufficiently to determine the proper jurisdiction." He acknowledges that he was referring to the Percent Local Usage (PLU) factor. The PLU factor and its significance are addressed below.

5. Two Way Trunking and Percent Local Usage Factor

AT&T witness Hamman asserts that under the terms of AT&T's Interconnection Agreement, AT&T should be able to place local, intraLATA, and interLATA calls over two-way trunks. Witness Hamman stated that it is technically feasible, and that BellSouth has agreed to do it. The witness complains, however, that the one thing left to work out is the Percent Local Usage (PLU) factor that would permit billing of appropriate charges for the various types of traffic. Witness Hamman states that BellSouth has delayed agreement on the PLU factors through "its improper insistence that the . . . BFR process is the only vehicle for the parties to address this issue." Witness Hamman asserts that AT&T believes that since two-way multi-jurisdictional trunking is contemplated in their agreement, BellSouth should not require the BFR process, which concerns items requested outside the agreement.

BellSouth witness Scheye states that the PLU factor has yet to be developed for ALECs utilizing trunks with multi-jurisdictional traffic. The witness further states that development of the PLU factor has been the major source of delay in implementing two-way trunking.

Witness Scheye also argues that the majority of carriers believe that one-way trunks are not only adequate, but would also be the most efficient. He stated that AT&T's interconnection agreement included provisions for one-way trunks. We note, however, that the agreement also specifically includes language and drawings showing how two-way trunking carrying all traffic would be developed.

6. Confirmation of SS7 Signaling Transfer Point Code Activation

At the hearing we considered evidence that SS7 code activation is required for proper exchange of traffic between BellSouth and

ALECs. TCG witness Hoffmann testifies that it is necessary for BellSouth to confirm that SS7 Point Codes have been correctly loaded in order to facilitate the exchange of SS7 messages. Witness Hoffman further testifies that such confirmation is required by its agreement. The witness asserts, however, that BellSouth does not provide this confirmation.

In response to TCG's assertion, BellSouth witness Milner stated that to his knowledge TCG never requested confirmation of SS7 point codes. TCG witness Hoffmann however, refers to several letters to BellSouth which requested confirmation, and which he states had gone unanswered. Witness Hoffmann also states at deposition that he had recently received verbal assurance from BellSouth that it is reviewing the issue. TCG's Interconnection Agreement, Section IV.G, states that STP/SS7 connectivity is required at each interconnection point. It does not specify any notification conditions, but does require that interconnecting facilities shall conform to industry standards pursuant to BellCore Standard No. TR-NWT-00499 and BellSouth Guidelines to Technical Publication, TR-TSV-000905.

7. Provision of Carrier Identification Codes (CIC)

TCG witness Hoffmann states that IXC CIC codes must be loaded into TCG's switch to properly recognize the IXCs providing service to TCG's customers through BellSouth access tandems. Witness Hoffman stated that TCG needs to have this information to properly route traffic to those IXCs. TCG argues in its brief that BellSouth provides CICs to its newly certificated IXC. TCG presented evidence that its interconnection agreement with respect to meet point billing also requires that BellSouth provide the carrier billing name, the carrier billing address, and the CIC. TCG presented evidence that BellSouth has not complied, despite several requests from TCG.

According to TCG witness Hoffman, BellSouth only provides a carrier's Access Customer Name Abbreviation (ACNA). TCG must then cross reference the ACNA in the Local Exchange Routing Guide (LERG) to obtain the proper CIC. TCG witness Hoffmann states that in several instances, the ACNA has not matched the associated carrier name provided by BellSouth.

At the hearing, BellSouth witness Stacy testified that TCG is correct that BellSouth only provides ACNA. Witness Stacy argues that the ACNA is more accurate, and that BellSouth uses the ACNA itself. He further states that any errors may be the result of the IXCs themselves not furnishing the information, or it could be possible that some IXCs may consider their CIC proprietary. He stated, however, that he was not certain of this, and he had not had time to investigate.

8. Provision of Meet Point Billing Data

At the hearing, TCG witness Hoffman asserted that, according to TCG's agreement, BellSouth is required to provide meet point billing data to TCG on a daily basis to the extent daily IXC usage has occurred. TCG witness Hoffman states that such data is required for TCG to properly bill IXCs for services provided by TCG. The witness asserts that BellSouth has yet to provide any such records since the beginning of its agreement with BellSouth. Thus, the witness states, TCG has been unable to bill IXCs for any calls terminated to TCG's end office since July 1996. Witness Hoffman further asserts that TCG has asked BellSouth about this on several occasions beginning in April 1997, and according to witness Hoffmann, BellSouth has promised to look into it. Witness Hoffman asserts that other BOCs provide this data to TCG.

Witness Scheye testifies that meet point billing is required in most of BellSouth's interconnection agreements. He also states that BellSouth can provide it to ALECs and that it currently does provide it to independent LECs. Witness Scheye did not, however, explain why meet point billing data is not being provided to TCG.

9. Conclusion

The evidence demonstrates that some ALECs are in fact providing service to their customers over interconnection facilities. Nevertheless, the evidence also indicates that BellSouth still has a number of problems to resolve in the area of interconnection before it may be found to be in compliance with Section 271 (c)(2)(B)(i). The evidence presented regarding the ALECs' problems in this area indicates that BellSouth has yet to develop the ability to provide all facets of interconnection as required in the Act, in a timely and efficient manner.

Collocation

Based on the evidence presented, we find that the primary problem with physical collocation is that no requests have been implemented. The intervenors presented evidence that BellSouth has been unsuccessful in meeting the required timeframes in its agreements. To date, only one physical collocation arrangement has been completed, and the evidence demonstrates that, at this time, BellSouth is not providing physical collocation to ALECs in a manner that is at parity with the manner in which it provides physical collocation to itself or its affiliates. BellSouth has not demonstrated why it cannot meet the timeframes set by this Commission or those set forth in its arbitrated agreements with MCI and AT&T, as required by Order No. PSC-96-1579-FOF-TP.

Another problem arises with respect to virtual collocation. By definition, virtual collocation requires that only BellSouth personnel have access to the ALEC's collocation space. Thus, only BellSouth can actually perform the functions at the collocation that are necessary to establish and provide service to an ALEC's customers. MCI witness Gulino testified that a collocation arrangement is one of the most important ways, from an engineering perspective, that an ALEC can compete with BellSouth. From the testimony, however, it appears that BellSouth has indicated that it will only negotiate with ALECs pursuant to its Bona Fide Request (BFR) process in an attempt to establish so-called "glue" charges, which are charges for combining UNEs at virtual collocations. BellSouth witness Scheye stated that BellSouth will not commit to providing the combining activity. The ALECs presented exhibit evidence, that because the vast majority of today's collocation arrangements are virtual, ALECs are faced with a situation in which they must either pay the "glue" charge or wait until BellSouth completes ALEC orders for physical collocation arrangements. At hearing, BellSouth witness Scheye offered another alternative, which was simply not to use collocation arrangements. We do not believe that the witness's suggestion is an acceptable solution to the problem under the Act since collocation is required for interconnection and access to UNEs. We note that the glue charge itself is the subject of much dispute because the Act requires that interconnection and UNE rates be based on cost. See Section 252(d)(1). MCI argues in its brief that the glue charge is in direct violation of its agreement with BellSouth.

Regardless of whether the pricing issues are eventually resolved, BellSouth's inability to establish physical collocations in a timely manner is still a problem which has a direct affect on the ALECs' ability to compete meaningfully in the marketplace. We note that until all physical collocation requests have been successfully implemented, we cannot determine that BellSouth has fulfilled the requirements of the Act. Accordingly, we find that BellSouth is not in compliance with the collocation requirements at this time.

There are also problems associated with collocation in the SGAT. First, there are no provisioning intervals in the SGAT even though they were part of the arbitration agreements. While BellSouth witness Milner provided supporting material to the SGAT as part of his testimony that contained a provision that states that collocation should be provided in three months, that language is not contained in the SGAT itself, nor is it in the Collocation Handbook. The purpose of the SGAT, according to BellSouth's witness, is to provide an opportunity for a carrier to take service without having to go through negotiation. We believe it is likely that any ALECs that seek to take service under the SGAT would want to know the provisioning period for a collocation arrangement ordered from the SGAT. We also note that by Order No. PSC-96-1579-FOF-TP, we required that physical collocation requests be completed in three months. In addition, the MCI/BellSouth Interconnection agreement requires that BellSouth must provide collocation within 90 days of the firm order.

Another problem with the SGAT is that the current collocation prices are interim under the terms of Order No. PSC-96-1579-FOF-TP. Witness Scheye stated, however, that BellSouth does not plan to alter the prices in the SGAT after permanent rates are set unless ordered to do so by this Commission. The interim collocation rates approved by us in Order No. PSC-96-1679-FOF-TP were those contained in the Collocation Handbook included in the record in that arbitration proceeding. Rates for the SGAT were included in a price list shown as Attachment A to the SGAT, and included as an attachment to witness Scheye's testimony. The collocation rates are different, and in most cases higher than, those we approved in Order No. PSC-96-1579-FOF-TP. In response to cross examination by AT&T at hearing, witness Scheye stated that the reason for the change in rates was "additional cost work" that had been done.

BellSouth did not present any evidence supporting those costs in this case.

BellSouth has filed cost data in the BellSouth arbitration cases to develop permanent rates. BellSouth witness Scheye testified that BellSouth did not base the proposed rates in the SGAT on those cost studies. Thus, the collocation rates BellSouth now proposes to use in the SGAT are based on cost studies other than those submitted in support of permanent rates in its arbitration proceeding. Because the cost data for the proposed SGAT rates was not approved by, or even presented to, this Commission as appropriate pursuant to Section 252(d)(2) we do not believe that the rates meet the requirements of the Act.

In addition, we note that MCI witness Gulino identified some potential collocation problems with respect to power supply and escort requirements. These problems were not further discussed at the hearing, and we do not believe that they constitute a problem with regard to the SGAT itself. If, however, any or all of these problems arise once actual experience is gained with physical collocation, and if they cannot be resolved, we should be made aware of them.

Network Blockage and End Office Trunking

Regarding the complaints about blockages on the network, although TCG does have the responsibility to inform BellSouth via forecasts and regular communication, BellSouth must assume the responsibility for trunk capacity requirements on its network. The evidence in the record indicates that both parties need to improve communications with respect to potential fluctuations in traffic. The evidence also indicates that BellSouth has not complied with the parity requirement in the Act regarding end office trunking. In order to comply with this provision, we believe that BellSouth must provide ALECs with more frequent and better data on their traffic over BellSouth's network. BellSouth must be able to demonstrate that any blockages experienced by ALECs are not excessive in comparison to the blockages experienced by BellSouth. Finally, BellSouth and the ALECs must work together to improve communications between each other. In addition, BellSouth must provide data sufficient to show that blockage levels are comparable between BellSouth and ALEC traffic.

Local Tandem Interconnection

Upon consideration of the evidence, we find that BellSouth's reluctance to provide local tandem interconnection does not comply with the Act's requirement that interconnection shall be provided at any technically feasible point. We note that we have previously ordered BellSouth to provide tandem interconnection, without qualification as to which tandem. See Order No. PSC-96-1579-FOF-TP. We believe that BellSouth has the responsibility to provide local tandem interconnection if it is requested. To the extent the only limitation is the development of the PLU factor, local tandem interconnection should be provided and no BFR process should be required.

Two Way Trunking and Percent Local Usage Factor

Upon consideration of the evidence, we find that BellSouth is not in compliance with the requirements of the Act regarding requests for two way trunking. As stated above, we believe that BellSouth should allow the use of a surrogate PLU, and not allow data collection to delay implementation of ALEC agreements. We note that BellSouth's interconnection agreement with TCG provides for the use of a surrogate PLU until sufficient data has been collected to calculate one. In addition, we find it noteworthy that TCG witness Hoffmann stated that BellSouth had provided TCG with a PLU for use in calculating end usage, and that TCG was not experiencing problems with the PLU.

Confirmation of SS7 Signaling Transfer Point Code Activation

Since the BellSouth/TCG agreement does not specifically require confirmation of SS7 Point Code activation, we find that BellSouth has not violated its agreement on this point. We believe, however, that BellSouth has the responsibility to work with TCG and other ALECs to ensure that interconnection procedures are working properly. Even if confirmation of SS7 point code activation is not specifically required in TCG's agreement, BellSouth should nevertheless respond to ALEC written inquiries in a timely fashion.

Provision of Carrier Identification Codes (CIC)

There is no evidence in the record to show whether CIC data or ACNA is more reliable. However, where BellSouth has agreed to provide CIC data in its interconnection agreements with ALECs, it should do so.

Provision of Meet Point Billing Data

Upon consideration of the evidence presented, we believe that the provision of meet point billing data is a significant problem that BellSouth must remedy. If BellSouth is asked to provide meet point billing data or that requirement is contained within an interconnection agreement, BellSouth must provide that information. The evidence demonstrates that BellSouth has not done so. Thus, BellSouth is not in compliance with the Act's requirements.

10. Additional Concerns with the SGAT

We believe that there is conflicting language within the SGAT regarding multi-jurisdictional trunks. One provision states that carriers may not combine local and toll on a two-way trunk. Another provision states that mixing traffic is allowed using PLU factors. This confusion should be remedied, and the SGAT should clearly state that PLU factors can be used to facilitate the use of two-way trunks.

We also believe that the definition of Local Traffic is problematic. The SGAT contains a statement that no company shall represent Exchange Access Traffic as Local Interconnection Traffic. MCI witness Martinez states that if we approve this part of the definition of local traffic, we must require BellSouth to provide ALECs a complete listing of the BellSouth NPA-NXXs that make up each local service area, and in a usable format. This point is logical, and we instruct BellSouth to do so.

Upon consideration of the evidence presented regarding this issue, we find that BellSouth has not met the requirements of Section 271 (c)(2)(B)(i). We also find that the provisions in BellSouth's SGAT regarding interconnection do not satisfy the requirements of Sections of 251(c)(2) and 252(d)(1).

B. Nondiscriminatory Access to Network Elements in Accordance with Sections 251(c)(3) and 252(d)(1), Pursuant to 271(c)(2)(B)(ii).

1. Description of Requirements and Functions

We generally agree with the FCC's interpretation of the requirements of Section 271 related to this issue; but we have not adopted the FCC's TELRIC cost methodology as the cost basis for setting rates. The 8th Circuit Court vacated the FCC's pricing rules stating "that the Act directly and straightforwardly assigns to the states the authority to set the prices regarding the local competition provisions of the Act in subsections 252(c)(2) and 252(d)." Our review of the record in this proceeding, therefore, is based on the requirements of the Act and the FCC's rules, except for those rules that were vacated by the 8th Circuit Court. See Iowa Util. Bd. V. FCC, Nos. 96-3321, et al., 1997 WL 403401, at 46(8th Cir., July 18, 1997.

Upon review of the Act and the applicable FCC's rules, we find that BellSouth has a duty to provide, to any requesting carrier, nondiscriminatory access to UNEs on rates, terms, and conditions that are just, reasonable, and nondiscriminatory. This access includes access to BellSouth's OSS functions. For those UNEs and OSS functions that have not been requested by carriers, BellSouth must demonstrate that it currently has the capability to provide such UNEs and OSS functions if requested.

In Order No. PSC-96-1579-FOF-TP, issued on December 31, 1996, in Dockets Nos. 960833-TP and 960846-TP, we determined that the following items are technically feasible for BellSouth to provide on an unbundled basis: the Network Interface Device, Unbundled Loops, Loop Distribution, Local Switching, Operator Systems, Multiplexing/Digital Cross-Connect/Channelization, Dedicated Transport, Common Transport, DA Transport, Tandem Switching, AIN Capabilities, Signaling Link Transport, Signal Transfer Points, and Physical Collocation and Virtual Collocation.

Although not shown in the list of UNEs above, the Act, the FCC's rules and orders, and our arbitration order, all require BellSouth to provide nondiscriminatory access to its operations support system functions. Although collocation is one method of

providing access to UNEs, it is also a method for interconnecting facilities and, therefore, is discussed in Section VI.A. above.

The FCC has determined that operations support systems generally include those systems and databases required for pre-ordering, ordering, provisioning, maintenance and repair, and billing. The FCC defines each OSS function as follows:

Pre-ordering and ordering. "Pre-ordering and ordering" includes the exchange of information between telecommunications carriers about current or proposed customer products and services or unbundled network elements or some combination thereof.

Provisioning. "Provisioning" involves the exchange of information between telecommunications carriers where one executes a request for a set of products and services or unbundled network elements or combination thereof from the other with attendant acknowledgments and status reports.

Maintenance and repair. "Maintenance and repair" involves the exchange of information between telecommunications carriers where one initiates a request for maintenance or repair of existing products and services or unbundled network elements or combination thereof from the other with attendant acknowledgments and status reports.

Billing. "Billing" involves the provision of appropriate usage data by one telecommunications carrier to another to facilitate customer billing with attendant acknowledgments and status reports. It also involves the exchange of information between telecommunications carriers to process claims and adjustments. (47 C.F.R. §51.5)

The FCC also determined that if competing carriers are unable to perform these functions:

...for network elements and resale services in substantially the same time and manner that an incumbent LEC can for itself, competing carriers will be severely disadvantaged, if not precluded altogether, from fairly competing. Thus providing nondiscriminatory access to these functions, which would include access to the information such systems contain, is vital to creating opportunities for meaningful competition.

One way that BellSouth can demonstrate that its competing carriers are receiving nondiscriminatory access to the five OSS functions defined above is through the interfaces it provides. In this proceeding, BellSouth has offered pre-ordering through the Local Exchange Navigation System (LENS) interface; ordering and provisioning through the Electronic Data Interchange (EDI), Exchange Access Control and Tracking System (EXACT), and LENS interfaces; maintenance and trouble reporting through the ALEC Trouble Analysis Facilitation Interface (TAFI) as well as the Electronic Bonding Interface (EBI or T1M1); and billing through the access to the Billing Daily Usage File. In addition, carriers have the option of sending orders via facsimile.

Pre-Ordering: LENS

The Local Exchange Navigation System (LENS) is the interface developed by BellSouth to allow ALECs to perform both pre-ordering and ordering functions. Although LENS provides ordering capability, BellSouth states that LENS is to be used primarily for pre-ordering functions. LENS can be accessed by : (1) dial-up; (2) LAN-to-LAN connection; and (3) the Internet. Pre-ordering functions generally take place while a customer is on-line negotiating a service order. The parties agree that pre-ordering information generally refers to accessing information that allows a customer service representative to validate a street address, and access telephone number information, products and services information, due date information, and customer service record information. LENS provides access to each of these types of information. According to BellSouth, LENS has been available for ALEC use since April, 1997.

Ordering: EDI, EXACT and LENS

BellSouth offers two interfaces primarily for ordering. As stated earlier, LENS is also capable of providing the ordering function; however, BellSouth recommends that ordering take place through the EDI interface. BellSouth offers the Electronic Data Interchange (EDI) interface for ordering resold services and network elements. This interface is sanctioned by the Ordering and Billing Forum (OBF) for local service ordering. There are three methods of sending EDI orders: (1) dial-up; (2) value-added network; and (3) Connect direct, which delivers orders in a batch mode. In addition, a personal computer based version of EDI, known as EDI PC is available. BellSouth claims the EDI interface is currently able to provide electronic ordering for 34 resale services and some UNEs. EDI can be used to order "simple" UNEs such as loops, ports, and interim number portability. BellSouth states that it has been using EDI for about 30 years, and ALECs have had access since December, 1996. The Exchange Access Control and Tracking (EXACT) system has been available for 12 years.

The EXACT interface is to be used for ordering interconnection services and some network elements. The EXACT system has been in use by interexchange carriers for ordering access service requests, such as Common and Dedicated Transport.

In addition to offering the pre-ordering function, LENS provides ordering capability. Although LENS offers integrated ordering capability, BellSouth recommends EDI for ordering, since the primary purpose of LENS is to provide pre-ordering functions. We note that BellSouth does not use LENS for its retail operations. Instead, BellSouth uses a system known as the Regional Negotiation System (RNS) for most types of residence orders, and a system known as Direct Order Entry (DOE) for business and complex orders, and for the residence orders not supported by RNS.

Maintenance and Repair: TAFI and EBI

BellSouth offers the Trouble Analysis Facilitation Interface (TAFI) for reporting problems with both residence and business basic services. BellSouth states that any repair attendant can handle a trouble report on any BellSouth provided basic exchange service. TAFI is designed to interact with BellSouth systems to

analyze a problem and recommend the appropriate action to correct the problem. TAFI is capable of correcting a problem by implementing a translation change in a switch. For other services, BellSouth offers its Electronic Bonding Interface (EBI). EBI handles trouble reports for designed or special services, which are services identified with a circuit number, instead of a telephone number. EBI is currently used by interexchange carriers for reporting problems with access services. TAFI has been available for ALEC use since March, 1997, and EBI, since December, 1995.

Billing: Billing Daily Usage File

BellSouth provides billing data to ALECs through the Billing Daily Usage File. The file provides billable call detail records in an industry-standard format, known as the Exchange Message Record (EMR) format. The Billing Daily Usage File is an electronic interface which provides billable usage information associated with items such as directory assistance, interim number portability, and UNEs, such as unbundled ports. Specific types of data include: intraLATA toll, billable local calls and feature activations, operator services, and WATS/800 services. The billing daily usage file has been available to ALECs since March of 1996.

2. Status of Provisioning of Service

BellSouth appears to be providing several, but not all, requested unbundled network elements to competing carriers. In addition, it appears that the ALECs are experiencing problems with the billing of UNEs, and with the interfaces used to access BellSouth's operations support systems.

BellSouth contends that it is providing UNEs to facilities-based providers. For those UNEs that have not been requested, BellSouth states that it will generally offer UNEs in the SGAT. According to BellSouth, the network elements that are being provided to facilities-based providers in Florida include 7,612 interconnection trunks, 7 switch ports, and 1,085 loops. In addition, witness Varner testified that there are 7 physical collocation arrangements in progress, 34 virtual collocation arrangements completed and 24 more in progress. BellSouth also asserts that it has 277 ALEC trunks terminating to BellSouth

Directory assistance, 911 and intercept and operator services, 11 verification and inward trunks, and 31 trunks for facilities based ALECs to access BellSouth operator call processing services.

BellSouth also provided a breakdown of the network elements and network functions requested by ALECs serving Florida. While this information is proprietary, various competitor witnesses verified the accuracy of the information relative to their company during the hearing. We note, however, that the amounts listed for the UNEs in the confidential exhibit are not equal to those provided by BellSouth witnesses Varner or Milner. The confidential numbers are lower than those presented in the prefiled testimony of the BellSouth witnesses.

As stated above, the LENS ordering interface has only recently become available for ALEC use. The EDI ordering interface has been available for ALECs for approximately one year. The EXACT interface has been in use for some time by IXC's, but not by ALECs.

ICI witness Chase testified that BellSouth has recently made EDI available for placing orders electronically, but that ICI is still using manual processes out of necessity. Witness Chase stated further, that despite BellSouth's claim that EDI was available to ALECs in December 1996, ICI was not informed by BellSouth that EDI was available until late April 1997. Therefore, although it is in ICI's interest to utilize BellSouth's OSS as soon as practical, the transition from manual ordering to electronic ordering is a new process that will take time.

3. Discussion of Alleged Problems

The intervenors argue there are several problems associated with UNEs and OSS. The problems are outlined below.

a. UNEs

Problem 1: Rates for UNEs do not Comply with the Act

AT&T and MCI witness Wood argue that the interim rates we set in the arbitration proceeding do not meet the §252(d)(1) cost standard in the Act. In support of their argument, they state that we did not determine that the interim rates are cost-based. Witness

Wood states further that compliance with §252(d)(1) "is not created by the expectation that the Commission will determine cost-based rates for UNEs in the future. Witness Wood also asserts that interim rates are not "rates" upon which companies can rely for capital budgeting purposes, since the rates represent costs to the company and are subject to change. Witness Wood states that interim rates do serve a useful purpose, which is to allow ALECs "to begin testing their market assumptions, training their employees, and testing the reasonableness and effectiveness of the processes established for interconnecting with BellSouth." According to witness Wood, however, interim rates remain a barrier to entry that must be removed in order for local competition to develop.

During cross examination, BellSouth witness Varner was asked if BellSouth filed any cost studies in this docket to support the prices in the SGAT. Witness Varner stated that no cost studies were filed, because the rates for the SGAT came directly from arbitration proceedings. BellSouth witness Scheye also stated that the vast majority of the prices in the SGAT were taken from arbitration proceedings. Although witness Scheye did not comment on the price for each and every UNE, he did state that the rates contained in the SGAT are either permanent arbitrated rates, interim rates from arbitration proceedings, or rates that were determined in other states.

In addition to the interim rates claimed not to be in compliance with the Act, Witness Wood argues that the permanent rates set by this Commission do not meet the cost standard in the Act. Witness Wood states that cost differences occur in some UNEs based on the geographic area being studied. Witness Wood believes that the cost of loop facilities are geographically sensitive, since the loop length and line density are the primary drivers of the cost of these elements. Therefore, in order for the rates to be truly cost based, they must reflect any geographic cost differences. Witness Wood points out that geographic deaveraging of wholesale rates should not be confused with geographically deaveraged retail rates. According to Witness Wood, it is "possible and appropriate" to have geographically deaveraged wholesale rates, while maintaining statewide average retail rates for end users. Witness Wood concludes by stating that "[c]ost based rates, established pursuant to section 252(d)(1), can and must reflect this demonstrated cost variability."

According to AT&T and MCI witness Wood, compliance with Section 252(d)(1) not only requires geographically deaveraged rates, but rates that are derived from costs that are based on an appropriate cost methodology. Witness Wood contends that the cost studies submitted by BellSouth in the arbitration proceeding were based on BellSouth's definition of TELRIC. Witness Wood states that BellSouth's TELRIC cost methodology calculates costs based on its embedded network, which is consistent with this Commission's definition of TSLRIC. The costs that result from methodologies based on an embedded network, however, are much higher than a methodology utilizing the "scorched node" approach. The scorched node approach only recognizes the existing locations of a LEC's existing wire centers. Witness Wood argues that the result of using a cost methodology that is not based on the scorched node approach, are costs that reflect inefficiencies inherent in an embedded network.

BellSouth witness Varner argues that deaveraging is not a requirement of the Act, nor is rate deaveraging required to determine checklist compliance. Witness Varner states that "BellSouth agrees that costs may vary by geographic area and that there are different levels of universal service support in different rates, but this is not the arena to address the issue." Witness Varner rebuts AT&T and MCI witness Wood's position that the rates set by this Commission in the arbitration proceeding are not cost based. Witness Varner states that the Act does not specify a particular cost methodology, and points out that the 8th Circuit Court's ruling granted the jurisdiction to determine the appropriate cost methodology exclusively to the state commissions.

We have set many permanent rates in the AT&T and MCI arbitration proceeding, consistent, we believe, with the requirements of the Act. Several UNEs were assigned interim rates pending receipt and review of cost studies provided by BellSouth. We will review these cost studies and set permanent rates for those UNEs that currently have interim rates. The following UNEs either have interim rates that we set in the BellSouth arbitration proceeding, or have no rate at all: 1) the Network Interface Device; 2) Loop Distribution; 3) 4-wire analog port; 4) AIN Capabilities (no rate); 5) Physical collocation; and 6) Virtual collocation.

Our review of the SGAT reveals that there are several UNEs for which we did not set rates in an arbitration proceeding. These elements are sub-loop elements and consist of loop distribution, loop cross connect, and loop concentration. Since cost studies were not submitted with the SGAT for these elements, we do not know what the cost basis is for the rates. Further, there is no cost evidence in the record for us to conclude that the rates for these sub-loop elements would be reasonable, even as interim rates.

The FCC stated in the Ameritech Order that it cannot conclude that the checklist has been met if the prices for interconnection and UNEs do not permit efficient entry. The FCC went on to say that "allowing a BOC into the in-region interLATA market in one of its states when that BOC is charging non-competitive prices for interconnection or UNEs in that state could give that BOC an unfair advantage in the provision of long distance or bundled services." In addition, the FCC concluded in the pricing section of the Ameritech Order that "a BOC cannot be deemed in compliance with sections 271(c)(2)(B)(i), (ii), and (xiii) of the competitive checklist unless the BOC demonstrates that prices for interconnection required by section 251, unbundled network elements, and transport and termination are based on forward-looking costs." In order to determine checklist compliance, the FCC stated that it is important for it to know whether the prices are "based on completed cost studies, as opposed to interim prices adopted pending the completion of such studies."

Upon consideration, we do not believe that interim rates can be used to support the SGAT or to demonstrate checklist compliance in general. We note, however, that we will be setting permanent rates for the UNEs for which BellSouth has interim rates in the near future. We would not reject BellSouth's application for interLATA authority simply because there are a limited number of interim rates that will be replaced by permanent rates in the near future. The SGAT and interconnection agreements can be revised once permanent rates are established for those UNEs.

Problem 2: BellSouth has not provided requested loops.

ICI witness Strow states that ICI has not received requested unbundled digital loops for data services from BellSouth. According to ICI, it requested unbundled loops from BellSouth on

July 11, 1996. BellSouth responded by letter on September, 10, 1996, stating that it could provide the requested loops. As of the date of this proceeding, however, some fourteen months later, BellSouth has not provided the requested loops to ICI. We address this more fully in Section VI.D. of this Order.

Problem 3: BellSouth has not demonstrated that it can provide mechanically generated billing statements for all UNEs.

On cross examination BellSouth witness Scheye stated that BellSouth currently cannot render bills electronically for the usage charges related to a loop and port combination. BellSouth witness Milner stated that unbundled local switching includes a monthly port charge and a per minute usage charge. BellSouth witness Scheye reaffirmed that BellSouth was unable to electronically provide billing for unbundled switching usage charges when questioned about such charges missing from the billing statements for AT&T's UNE test orders.

During cross examination, BellSouth witness Scheye identified the elements and charges listed on the AT&T bills. Witness Scheye verified that the billing statement listed two loop/port combinations for a total of \$34, which is \$17 each. The AT&T/BellSouth arbitrated agreement, however, lists the loop element alone as \$17. In addition, this is the rate listed in the draft SGAT for an unbundled 2-wire loop. The bill listed a charge for a "USOC 1MR - Description of residential message rate line." BellSouth witness Scheye stated that this appeared to be the port charge and not a rate for a message rate service. In addition to the errors just described, several items were listed on the bill, even though the items are not UNEs. First, a "listing not in directory" charge was added to the bill. BellSouth witness Scheye agreed that this charge is not in the SGAT or any BellSouth interconnection agreement. Second, there is a "South Miami manhole charge" listed on the bill. Witness Scheye could not explain the purpose of the manhole charge. Finally, the bill contained numerous charges for direct dialed long distance calls that BellSouth was assessing AT&T, even though AT&T was listed on the bill as the presubscribed carrier for both intraLATA and interLATA toll calls.